Computer Science for All

Game-Changing Research Incentive Program (GRIP) Proposal
The Computer Science for All Team

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Tasks for a Systemic Approach

1. Conduct research on computer science teaching and learning
2. Develop technology-enabled learning resources
3. Influence the practice of teaching computer science
4. Inform policy decisions at state and local levels
5. Evaluate our approaches
Budget

- Almost all costs are for personnel
  - Senior staff time
  - Project manager
  - Education and Computer Science GRAs
  - RTI evaluation staff
- Less than 5% for travel, materials, consultants
Potential Impact in 3, 5 and 10 Years

1. NC State will be a national and international leader in research on computer science education
2. North Carolina will be a model for other states
3. Major grants for research and development
4. Business alliance to provide further support
5. Contracts with states and districts
6. Commercialization of learning systems developed
7. Broader participation in computer science in K-12 schools, leading to increased applications to NC State
Game Changing Institutional Partnership

1. Addresses the grand challenges of
   • Preparing students to be digital-age problem solvers
   • Broadening participation in computer science and STEM

2. Systemic approach across technology innovation, research, practice, and policy

3. Formative and summative evaluations by RTI

4. Capacity and track record of the team involved

5. Impact in North Carolina, nationally and internationally
GRIP funding would provide the resources necessary to strategically coordinate our work and aggressively take advantage of the many windows of opportunity to address the Computer Science for All goals
Questions?